

May 23, 2002

Robin Morecroft, P.E.
Director of Project Management
EnviroPower LLC
28th Floor
Lexington Financial Center
Lexington, KY 40508

Subject:

Compatibility between land use by a Utility and a single family residence

located approximately 2.5 miles from the Stack of the proposed utility

Dear Mr Morecroft

Air Soil & Water Environmental Consulting and Testing Laboratories, Inc ASW has prepared a worst-case model of ambient environmental noise levels emitted from the proposed power plant equipment. The following details the basic assumptions of the model and site conditions.

MODEL ASSUMPTIONS:

- The worst-case environmental ambient noise levels emitted from the power plant equipment is modeled after the Noise Evaluation of the Burbank Magnolia Power Project. While not all of the equipment assessed in the Burbank evaluation will be present at The Kentucky Mountain Power Plant, similar products will be used.
 i.e. the combustion turbine and the heat recovery steam generator will not be used at Kentucky Mountain Power, a similar product to the heat recovery steam generator will be used.
- 2. That there are no natural sound barriers to deflect or absorb noise and that sound pressure levels are not contained by a structure.
- 3. That day and night levels of noise are constant.

- 4. That Sound Pressure Level drops with each doubling of distance. 1
- 5. That Adjusted Yearly Average Day Night Sound Levels in residential neighborhoods with extensive outdoor use is 65 dB. ²
- 6. That Adjusted Yearly Average Day Night Sound Levels for commercial-wholesale, some retail, industrial manufacturing, and utilities is 80 dB.²
- 7. The proposed Power Plant and Coal Handling Facility physically occupies 195.05 acres. The entire property controlled by the owner is approximately 4,000 acres.

The following table estimates the Sound Pressure Level Drop over distance for each piece of equipment assessed in the Burbank Magnolia Power Project Evaluation. ³

HP/IP BOILER FEEDWATER PUMPS

dBA	Feet	Results
90	3	90.65
90	50	70.3
90	100	48.6
90	150	26 9
90	200	5.2
90	250	-16.5

CLOSED CYCLE COOLING WATER PUMPS

dBA	Feet	Results
90	3	90.65
90	50	70.3
90	100	48.6
90	150	26 9
90	200	5.2
90	250	-16.5

¹ Figure 3.3 Effects of Distance on Sound Pressure Levels, Van Nostrand Reinhold, Environmental Engineering Series 1969

² American National Standard (ANSI S12.9-1998/ Part 5, Quantities and Procedures for Descriptive and Measurement of Environmental Sound Part 5 Sound Level Descriptors fro Determination of Compatible Land Use

 $^{^3}$ Sound Pressure Level over distance is calculated using the equation L $_{eq}$ (equipment)=E.L +10log(UF) - 20log {D/50}-10Glog{D/50}

COOLING TOWER CELL

dBA	Feet	Results
65	400	65.5
65	450	65.3
65	500	65.2
65	550	65.0
65	600	64.9
65	650	64 7
65	700	64.5
65	750	64.4
65	800	64.2
65	850	64.0
65	900	63 9
65	950	63.7
65	1000	63.6
65	2000	60.3
65	4000	53.8
65	6000	47.3
65	8000	40.8
65	10000	34 3

GAS COMPRESSOR

dBA	Feet	Results
90	3	90.6
90	50	70.2
90	100	48.6
90	150	26.9
90	200	5.2 -
90	250	-16.4

STEP-UP TRANSFORMERS

dBA	Feet	Results
85	1	85.6
85	50	21.9
85	100	-43.2

CONDENSATE PUMPS

dBA	Feet	Results
90	3	90.65
90	50	70.3
90	100	48.6
90	150	26.9
90	200	5.2
90	250	-16.5

STEAM TURBINE AND GENERATOR

dBA	Feet	Results
65	400	65.5
65	450	65.3
65	500	65.2
65	550	65.0
65	600	64.9
65	650	64 7
65	700	64.5
65	750	64.4
65	800	64.2
65	850	64.0
65	900	63.9
65	950	63 7
65	1000	63.6
65	2000	60.3
65	4000	53.8
65	6000	47.3
65	8000	40.8
65	10000	34.3

COMBUSTION GAS TURBINE AND GENERATOR

dBA	Feet	Results
65	400	65 5
65	450	65.3
65	500	65.2
65	550	65.0
65	600	64.9
65	650	64.7
65	700	64.5
65	750	64.4
65	800	64 2
65	850	64.0
65	900	63.9
65	950	63.7
65	1000	63.6
65	2000	60.3
65	4000	53.8
65	6000	47.3
65	8000	40.8
65	10000	34.3

HEAT RECOVERY STEAM GENERATOR (HRSG)

dBA	Feet	Results
65	400	65.5
65	450	65.3
65	500	65.2
65	550	65.0
65	600	64.9
65	650	64.7
65	700	64.5
65	750	64.4
65	800	64.2
65	850	64 0
65	900	63.9
65	950	63.7
65	1000	63.6
65	2000	60.3
65	4000	53.8
65	6000	47 3
65	8000	40.8
65	10000	34.3 -

SOUND PRESSURE LEVELS REPRESENT MAXIMUM A-WEIGHTED SOUND PRESSURE LEVELS PER UNIT.

CONCLUSION:

Based upon the above estimated Sound Pressure Level Drop the residential property located approximately 2.5 miles from the proposed power plant will not be adversely impacted by noise.

Prepared By-

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BRIGHTON ENGINEERING COMPANY

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May 20, 2002

Tom Ryavec EnviroPower, LLC. 2810 Lexington Financial Center 250 West Main Street Lexington, Kentucky 40507

RE: Knott County

Elk Run Business Park

Access Road

Dear Mr. Ryavec:

KY 80 is the major route providing access to the project area from the east and west. KY 80 was designed as a Resource Recovery Road and is capable of accommodating high volumes of heavy truck traffic especially heavy coal trucks. The roadway consists of four lanes, two lanes in each direction, with heavy duty pavement and a raised median for traffic separation. Currently available traffic counts indicate that approximately 6,795 vehicles per day pass through the proposed project area. AASHTO guidelines suggest that a four lane facility of this type can accommodate approximately 1,500 vehicles per hour for each traffic lane or approximately 144,000 vehicles per day.

Access to the project area from KY 80 will consist of two phases.

During the first phase of the project, the first year of construction, all traffic will access the site from KY 80 along KY 1087 and an existing coal haul road. The existing roadway functions as a coal haul road and has been upgraded to accommodate heavy coal trucks. This route currently accommodates approximately 680 vehicles per day which is primarily traffic associated with the existing mining operation of Starfire Mining Company. Construction traffic will result in an estimated 420 additional vehicles per day. No conflicts or impact to traffic is anticipated due to anticipated offsets in peak times of arrival associated the existing mining activity and the proposed construction activity. No increase in fugitive dust is anticipated since the existing mining activity is required to minimize

fugitive dust through the use of water and dust palliatives.

As part of the first phase of the project the Kentucky Mountain Power project, and the Knott County Fiscal Court in cooperation with the Kentucky Transportation Cabinet is designing and will subsequently construct a new access road to the Elk Run Business Park and the proposed EnviroPower facility.

The new access road will consist of two 12-feet traffic lanes with fully paved shoulders. The traffic lanes will consist of a heavy duty pavement which is designed to accommodate heavy coal trucks. Construction activities involving the access road will be constantly monitored by the Kentucky Transportation Cabinet and will be conducted under the Departments dust and erosion control guidelines that will minimize impacts to adjacent areas.

During the second phase of this project this new access road will provide access to the business park and the Kentucky Mountain Power site. This new access road will remove all project traffic from existing local roads and provide access to the project area directly from KY 80. The new access road is designed in accordance with the strict guidelines of the Kentucky Transportation Cabinet and will accommodate anticipated traffic and increased truck traffic to the facility. Since the new access road employs a new bituminous surface it will minimize impacts due to fugitive dust and noise. All traffic to and from the Business Park and Kentucky Mountain Power Facility will utilize the new access road.

Once the construction phase is complete and the power plant is operating, Kentucky Mountain Power estimates that 736 vehicles per day are expected to access the plant site via the new paved road. Approximately 71% of this traffic will be directly associated with the delivery of waste fuel, raw coal and limestone. The trucks hauling in this material will all be covered to eliminate the possibility of fugitive dust. The remainder of the traffic will be from employees at the power plant and the water treatment plant along with the various vendors necessary to service the facility.

No rail service is involved in this project.

Thank you, Brighton Engineering Company

Luther A. Miracle, P.E.

8.8 Mitigating Measures

As fully described in Sections 8.1 through 8.7 and as indicated on Site Map 8.9 (A), Kentucky Mountain Power has made every effort to locate this site in a remote area so that no mitigation measures would be required.

Independent engineering reports indicate minimal scenic, noise, and traffic impacts caused by this project.

This project, along with the associated improvements to the areas, such as the bridge, business park, golf course, and potable water, will be marked improvement to this previously strip mined property.